Chapter 7. INTERNATIONAL OPERATIONS

Section 1. MESSAGES AND FORMATS

7-1-1. GENERAL

a. Title 14 of the U.S. Code of Federal Regulations (14 CFR) and the International Civil Aviation Organization (ICAO) require flight plans for all civil aircraft operation between the United States and foreign locations. U.S. Customs requirements, international flight plan information, and Air Defense Identification Zone (ADIZ) penetration requirements are listed in other publications; e.g., the FAA International Flight Information Manual (IFIM), the U.S. Customs Guide for Private Flyers, the Aeronautical Information Manual (AIM), CFR Part 91, and CFR Part 99. Designated airports of first landing are listed in the IFIM and The Airport/Facility Directory (AFD).

b. This chapter provides guidance to AIFSS, AFSS, FSS, and ARTCC facilities that transmit international flight movement messages. It incorporates relevant information from ICAO and 14 CFR documents. All personnel required to handle international messages shall be familiar with ICAO documents containing instructions for preparing and transmitting communications for the AFTN circuits. These documents should be retained at FAA facilities which handle international messages. FAA personnel shall not act as agents for any aircraft operating or dispatching company.

NOTE-
International telecommunications instructions are found in International Standards and Recommended Practices, ICAO Annex 10 - Aeronautical Telecommunications, Volume II, and Document 7946, Manual of Teletypewriter Operating Practices. DOC 4444-RAC 501, Rule of the Air and Air Traffic Services, lists various ATS movement messages. Location indicators are contained in ICAO Document 7910, and Designators for Aircraft Operating Agencies Aeronautical Authorities and Services are contained in ICAO DOC 8585. FAA policies concerning acceptance of messages for international transmission are contained in 14 CFR Part 189.

c. AFSS's and FSS's that transmit only occasional international messages or are unable to determine the correct addressing for all air traffic units concerned may refer the pilot to the proper gateway facility or address the message to the proper gateway facility for handling. The gateway stations and their areas of responsibilities are as follows:

1. New York AIFSS (ISP): Bermuda, Canada, North Atlantic, Europe, and Africa.

2. Miami AIFSS (MIA): Caribbean, South America, and Central America.

3. Kenai AIFSS (ENA): Alaska.

4. Oakland AIFSS (OAK): Pacific.

d. To ensure that the gateway facility understands your request, include T (transmit) instructions in the first line of text.

EXAMPLE-
AIS
FF KMIAYFYX
DTG KICTYFYX
MIA T ALL INTL ADDRESSEES
(Text)

M1

ORIGIN: PRECEDENCE.FF TIME: ACK:N
ADDR:KMIAYFYX
TEXT:MIA T ALL INTL ADDRESSEES
(TEXT)

7-1-2. AIR TRAFFIC SERVICE (ATS) MESSAGES

ATS as used in this section, as opposed to the meaning of the term within the FAA, is a generic term meaning and including: flight information, alerting, air traffic advisory, and air traffic control (ATC) services.

7-1-3. CATEGORIES OF MESSAGES

The following ATS messages, with their normal priority indicators, are authorized for transmission by any means; i.e., AFTN, NADIN, interphone, computer-to-computer, or via the aeronautical mobile service, as applicable.

a. Emergency Messages.

1. Distress messages and distress traffic, including alerting (ALR) messages relating to distress (DETRESFA) phase-SS.

2. Urgency messages, including alerting messages relating to an alert (ALERFA) phase or to an uncertainty (INCERFA) phase-SS.

3. Other messages concerning known or suspected emergencies which do not fall under subparas 7-1-3a1 and 2 and radio communications failure (RCF) messages-FF or higher as required.

b. Movement and Control Messages.

1. Flight plan (FPL)-FF.

2. Amendment and coordination messages.

(a) Departure (DEP)-FF.

(b) Delay (DLA)-GG.

(c) Arrival (ARR)-GG.

(d) Boundary estimate (EST)-FF.*

(e) Modification (CHG)-FF.*

(f) Coordination (CDN)-FF.*

(g) Acceptance (ACP)-FF.*

3. Cancellation (CNL)-GG.*

4. Clearances, flow control (SPL, CHG, CDN)-FF or DD.*

5. Transfer of control (TCX)-FF.*

6. Requests (RQS)-FF.*

7. Position reports (AIREP)-FF.*

c. Flight Information Messages.

1. Traffic information-FF.*

2. Meteorological information (MET)-FF or GG.

3. Operation of aeronautical facilities and essential airport information (NOTAM)-GG.

** Normally exchanged between ATC units via voice circuits.*

d. Technical Messages. Four categories of these messages are specified for use on computer-to-computer circuits only. They will not be sent on AFTN or NADIN circuits.

7-1-4. SERVICE MESSAGES

a. NADIN will immediately generate a service message to an originator when incorrect code or routing indicators are detected.

EXAMPLE-
FF KZKCZQZX
031840 KSLCYTYX
SVC. ZKC121 QTA RPT
FF KZKCZQZX
031840 KSLCYTYX
SVC. ZKC122 QTA MSR

b. Assign the appropriate priority indicator to international service messages. When service messages refer to messages previously transmitted, assign the same priority prefix. Identify a service message by inserting SVC as the first item of the text.

EXAMPLE-
FF TJSJYFYX
DTG KSEAYFYX
SVC. RUMES 231015
(Text)

7-1-5. TRANSMISSION VIA NADIN

International messages are generally introduced on NADIN for relay to AFTN circuits.

a. M1FC facilities use the ICAO flight plan mask or TB mask. Addressee(s): Not to exceed 69 characters or seven addressees, each addressee separated by a space.

b. AIS facilities handle international messages on NADIN for relay to AFTN as follows:

1. Start of message. New Line Key.

2. Preamble (priority, space, addressee(s).

(a) Priority. Two-character precedence field.

(b) Addressee(s). Not to exceed 69 characters or seven addressees, each addressee separated by a space.

(c) End of Line (EOL) new line key.

(d) End of Text (EOT) (enter function).

7-1-6. TRANSMISSION OF ATS MESSAGES

a. Air traffic service messages are interchanged in the international air traffic control system in the following modes:

1. The preferred step-by-step mode wherein each ACC/ARTCC sends forward the full current (updated) flight plan information as the flight progresses.

2. The simultaneous mode wherein information extracted from the filed flight plan (FPL) is sent simultaneously to all ATS units along the route of flight. In this mode, only amendments to the FPL, plus

necessary control information, are forwarded from center to center as the flight progresses.

b. Prepare and transmit ATS messages as set forth in this Order. Address these messages as follows:

1. Include an eight-character addressee indicator for each addressee. There can be no more than one line (69 characters including separating spaces) of addressees. When more than the allowable number of addressees are required, two or more transmissions of the message (each with no more than the allowable number of addresses) must be made. The eight-letter combination addressee indicators are composed as follows:

(a) The four-letter ICAO location indicator; e.g., MPTO. Use only those listed in ICAO DOC 7910 (Location Indicators). Some ICAO eight-character addressees for Mexico and Canada are listed in FAAO 7350.6.

(b) A four-letter designator for the facility type/office, or if no designator has been assigned, affix YXYX for military, ZZZX for aircraft in flight, or YYYX for all other cases; e.g., MTPPYYYX. (See Note.)

REFERENCE-
ICAO DOC 8585, Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services.

NOTE-
The most frequently used and authorized designators are:
YAYX Government Civil Aviation Authority (FAA Regional Office or Headquarters).
YCYX Rescue Coordination Center (RCC).
YDYX Authority Supervising the Aerodrome.
YFYX Aeronautical Fixed Station (AFSS/FSS/IFSS/-IATSC).
YMYX Meteorological Office (NWS).
YNYX International NOTAM Office (NOF).
YTYX Telecommunications Authority.
YWYX Military Flight Operational Control Center (ACP).
YXYX Military Organization (BASOPS).
YYYX Organization not allocated a two-letter designator.
ZOZX Oceanic Air Traffic Control Center.
ZPZX Air Traffic Service Reporting Office.
ZQZX Computer Facility at ACC/ARTCC.
ZRZX ACC/ARTCC. (Center in charge of a FIR/UIR when the message is relevant to a VFR flight (AMIS)).
ZTZX Aerodrome Control Tower.
ZZZX Aircraft in flight.

(c) A one-letter designator will appear following an air carrier designator to indicate the department or division of the organization addressed.

2. Filing time. A six-digit date/time group indicating the time the message is filed with the AIFSS/AFSS/FSS for transmission.

c. Originator Indicator. Consists of an eight-letter sequence similar to an address indicator, identifying the place of origin and the organization originating the message.

d. Supplementary Address and Origin Information. When the four-letter designators YXYX, ZZZX, or YYYX are used, identify the aircraft operator or organization at the beginning of the text preceding the start-of-ATS data symbol (⟨- -), in the same order as in the addressee(s) and/or originator indicator(s). Where there is more than one such insertion, the last should be followed by the word "stop." Where there are one or more insertions in respect to addressee indicators plus an insertion in respect to the originator indicator, the word FROM is to appear before that relating to the originator.

e. When addressing flight plan messages or related amendments and flight plan cancellation messages to centers, use one of the four-letter designators as follows:

1. If message is relevant to IFR and:

(a) The ARTCC is computer-equipped (U.S. ARTCC's), use ZQZX.

(b) The center is not computer-equipped, use ZRZX.

(c) Relevant to oceanic operations, use ZOZX.

NOTE-
Some centers may request specific addressing different from above. ZTZX and ZPZX are used internationally, but are not used in internal U.S. application.

2. If message is VFR (AMIS), use ZRZX.

3. If SVC or administrative, use ZRZX.

7-1-7. ORIGINATING MESSAGES

a. Messages for ATS purposes may be originated with ATS units by aircraft in flight, or, through local arrangements, a pilot, the operator, or their designated representative.

b. Accept air-filed flight plans or changes in destination information from aircraft inbound from foreign locations and, if requested by the pilot, enter Customs notification service.

c. Do not accept round-robin flight plans to international locations.

d. Do not accept assumed departure flight plans when the destination is in a foreign country other than Canada.

e. Aircraft movement, control, and flight information messages for purposes other than ATS, such as operational control, shall be originated by the pilot, the operator, or their designated representative.

7-1-8. ADDRESSING MESSAGES

a. Addressing the flight plan is determined by the point of departure, the destination, and the FIR boundaries to be penetrated during the course of the flight.

b. Address IFR FPL messages to the ARTCC serving the airport of departure and to all ATS units (including oceanic) providing air traffic control service or concerned with flight along part or the whole of the route to be flown except FAA ATCT's and other conterminous U.S. ARTCC's.

NOTE-
Within the North Atlantic (NAT) Region, FPL's on turbojet aircraft transiting the control areas of Gander Oceanic, New York Oceanic, Reykjavik, Santa Maria Oceanic, Shanwick Oceanic and Sondrestrom (south of 70 degrees) within 90 nautical miles of the control area boundary, shall be addressed to the adjacent ACC to provide lateral separation. For all other aircraft, a 120 nautical mile proximity limit shall apply.

c. Transmit all IFR FPL's to ARTCC's not less than 1 hour prior to the proposed departure time. Do not hold FPL's until after departure time and transmit as a combined FPL and DEP. Separate FPL and DEP messages must be transmitted.

NOTE-
ICAO flight plans do not require an acknowledgment to the transmitting facility.

d. Address aircraft movement messages only to those ATS units responsible for the provision of relevant service, except when requested by the operator concerned, these messages, when transmitted via the AFTN, may also be routed, as specified by the operator or a representative to:

1. One addressee at the point of intended landing or point of departure.

2. Not more than two operational control units concerned.

e. The ARTCC serving the departure airport shall transmit the DEP message on IFR aircraft to all known recipients of the FPL message. Flights between conterminous U.S. and Canada (excluding Gander Oceanic), Alaska, Hawaii and Puerto Rico do not require DEP messages. Discontinuance of DEP messages affecting the route of flight can only be accomplished by ICAO Regional Air Navigation Agreement.

7-1-9. FLIGHT PLAN FORMS AND INSTRUCTIONS

a. Use the International Flight Plan, FAA Form 7233-4 (see Appendix B), ICAO Model Flight Plan Form displayed in DOC 4444, or M1FC FP MASK and apply the procedures set forth in this section for flight:

NOTE-
Exceptions apply for flights to Canada and Mexico, see Section 4 and Section 5, for procedures.

1. Originating within conterminous U.S. and Canada and destined nonstop to points beyond those areas.

2. Originating within or transiting Pacific Flight Information Regions (FIR's) and destined to or from FIR's beyond the Pacific Region including the North American (NAM) Region.

NOTE-
1. The NAM Region encompasses the conterminous U.S., Alaska, and Canada to the North Pole.

2. FAA Form 7233-1, or Military Form DD-175, and domestic procedures are used for flights in the conterminous U.S., Canada, and the Honolulu, Alaskan, and San Juan domestic control areas.

3. AIS facilities record on the flight plan form the time that a flight plan is filed. This time will constitute evidence of the pilot's intention to comply with Customs, Immigration, and Public Health requirements and will be made available upon request from these authorities.

7-1-10. ICAO ATS MESSAGE FORMAT

The following are examples of ICAO message types most likely to appear on AFTN/NADIN circuits. The number above the data corresponds to the field type numbers on the flight plan form (FAA Form 7233-4) and on the chart of Standard ATS Messages and Their Composition, Appendix B.

a. Departure Message (DEP). ARTCC's are the designated ATS unit responsible for originating and transmitting DEP messages on all IFR aircraft departing airports within their center boundaries. IFR flight plans must be transmitted to ARTCC's at least 1 hour

before departure. This allows ARTCC's to determine recipients of DEP message when domestic portions are transmitted to ARTCC's in M1 format. Do not hold FPL's and combine with DEP into a single message.

b. Delay Message (DLA). Transmitted when departure of an aircraft, for which an FPL message has been transmitted, is postponed or delayed more than 30 minutes after the estimated time of departure contained in the FPL.

c. Alerting Message (ALR). Relating to an overdue situation on an aircraft.

d. Supplementary Flight Plan (SPL) information shall be sent to ATS units requesting the information (RQS).

e. Arrival Message (ARR). Sent only on Canadian MOT, U.S. DOT, or FAA aircraft or upon request.

f. Current Flight Plan (CPL) Message. Originated by and transmitted in a step-by-step mode between successive ACC's and between the last ACC to the control at the airport of intended landing. CPL's contain only information relevant to that portion of the route of flight which extends from the point of entry into the next control area or FIR to the airport of intended landing.

g. Acceptance (ACP) Message. Transmitted when the data contained in a CPL message are found to be acceptable to the receiving ACC.

h. Flight Plan Cancellation (CNL) Message. Transmitted when a current (CPL) or filed flight plan (FPL) message was transmitted and the flight is canceled.

7-1-11. FLIGHT PLAN CHANGES AND CANCELLATIONS

a. Assume departure station duties when a flight plan change is received from an aircraft en route to a foreign location.

REFERENCE-
Para 6-4-8, Major Flight Plan Changes from En Route, and Para 6-4-9, Change in ETA.

b. An AFSS/FSS receiving a VFR flight plan cancellation report from aircraft en route to a foreign location shall transmit a cancellation message to the appropriate foreign tie-in facility.

REFERENCE-
Para 6-4-10, Flight Plan Closure.

7-1-12. AIR MOBILE SERVICE (AMS)

a. Air Mobile Service (AMS) is an international air/ground communications network. It provides service to en route aircraft primarily in support of ATC and company operations, and collects meteorological data for dissemination. Although in the U.S. this service is provided via contract (ARINC), FAA flight service facilities may be required to relay information on a case-by-case basis.

b. The AMS network is composed of individual units geographically limited to areas where effective coordination and cooperation between ground stations are possible.

c. For any individual route segment, the AMS communication requirements will normally be met by two or more network stations serving the flights on that route segment. In general, these primary stations serve the ACC serving the FIR's and the points of takeoff and landing. In some cases, additional suitably located stations are required to complete the communications coverage.

d. Each of these stations may be required at some stage of the flight to exchange communications with the aircraft, and when not so engaged, to intercept, as required, communications exchanged between the aircraft and any one of the other stations.

e. Stations providing regular network service to aircraft operation along route segments in an ACC's FIR are termed regular stations. Other network stations will only be required to assist communications for that FIR in the event of communications failure.

f. When communications permit, aircraft should transmit their messages to the primary station of the network from which they can most readily be delivered to their ultimate destination. In particular, aircraft reports required by ATC should be transmitted to the network station serving the ATC center in whose area the aircraft is flying. Conversely, messages to aircraft in flight should be transmitted direct to the aircraft by the network station serving the location of the originator.

g. Messages passed from aircraft to a network station should be intercepted and acknowledged by other stations which serve locations where the information is also required. Such intercepts provide instantaneous delivery of information and eliminates the transmission of messages over the AFTN. Networks may not be used for transmission of aircraft reports except under the intercept principle. Acknowledgments of intercept shall be made immediately after the

acknowledgment of receipt by the station to which the message was passed. In the absence of acknowledgment of intercept within 1 minute, the station accepting the message from the aircraft shall forward the message via the AFTN to the ultimate destination.

h. In areas or on routes where radio operations, lengths of flights, or distance between stations require additional measures to ensure continuity of communications throughout the route segment, the stations shall share the responsibility of primary guard whereby each station will provide the primary guard for that portion of the flight during which the messages from the aircraft can be handled most effectively by that station.

i. During its tenure of primary guard, each station will:

1. Be responsible for designating primary and secondary frequencies for communications with aircraft.

2. Receive all position reports and handle other messages from and to the aircraft essential to the safe conduct of the flight.

3. Be responsible for the action required in case of failure of communication.

j. Transfer of primary guard from one primary station to the next will normally take place at the time of traversing FIR or control area boundaries. When communications conditions so demand, a station may be required to retain primary guard beyond geographical boundaries or release its guard before the aircraft reaches a boundary.

7-1-13. AIREP'S (POSITION REPORTS)

a. AIREP's are messages from an aircraft to a ground station. AIREP's are normally comprised of the aircraft's position, time, flight level, ETA over its next reporting point, destination ETA, fuel remaining, and meteorological information. When recording an AIREP on data terminals or written copy, the following procedures shall be used.

1. Each line shall begin at the left margin.

2. A new line shall be used for each transmission.

3. If communications allow, each report shall contain the following items in the order shown:

(a) Message type ARP.

(b) Call sign of the calling station (aircraft).

(c) Text of the message.

(d) Call sign of the station called or receiving station followed by the appropriate abbreviation to indicate received, readback, or no reply heard.

(e) Call sign of station(s) acknowledging intercept followed by appropriate abbreviation to indicate received.

(f) Designation of frequency used.

EXAMPLE-

**2866QM*	*8903VO*	*13300YH*
2932QI	*-5631TY*	*11384XM*
2998QL	*6532UA*	*13294YF*
5628TO	*10048WH*	*17904ZC*

**For Alaskan domestic use only.*

(g) Time in UTC of the communication.

4. Missing parts of the message text shall be indicated by the letter M.

EXAMPLE-

ARP CPC583 KBRO 2100 F330 MMTM 2128
ETA XMMMX 2248 FUEL 0324
KNEW RB
MMMX R
TO2103

b. AIREP's may be filed from any aircraft inflight within World Meteorological Organization (WMO) areas of responsibility in conformity with ICAO requirements for position, operational, or meteorological reporting in AIREP format. AIREP information shall be disseminated to ATC, company, and meteorological offices as required. AIREP's consist of three sections comprised of 12 items. AIREP's may be filed in one, two, or three sections as follows:

1. Section 1, Routine report. A position report (PSNRP) comprising the Message Type Designator -ARP and the following items:

(a) Item 1, Aircraft identification.

(b) Item 2, Position. Record position in latitude (degrees as two numerics, or degrees and minutes as four numerics, followed without a space by N or S) and longitude (degrees as three numerics, or degrees and minutes as five numerics, followed without a space by E or W) or as a significant point identified by a coded designator (two-to-five characters) or as a significant point followed by a magnetic bearing (three numerics) and a distance in nautical miles (three numerics) from the point, such as 4620N07805W, 4620N078W, 46N078W, LN, MAY or DUB180040. Precede significant point by ABM (abeam), if applicable.

(c) Item 3, Time. Record time in hours and minutes UTC (four numerics). The time recorded must be the actual time of the aircraft at the position and not the time of origination or transmission of the report.

(d) Item 4, Flight level or altitude. Record flight level as F followed by three numerics when on standard pressure altimeter setting, such as F370. Record altitude in meters followed by M, or in feet followed by FT, when on QNH. Record ASC (level) when climbing, or DES (level) when descending to a new level after passing the significant point.

(e) Item 5, Next position and time over. Record the next reporting point and the estimated time over such reporting point, or record the estimated position that will be reached 1 hour later, according to the position reporting procedures in effect. Use the data conventions specified in subpara 7-1-13b1(b) Item 2, Position, for position. Record time in minutes past the hour (two numerics) or in hours and minutes UTC (four numerics) when necessary.

EXAMPLE-
PSNRP portion of AIREP prepared by De Ridder and addressed to Canadian Pacific Airlines (CPC) in Toronto and Mexico City:

AIS
FF CYYZCPCX MMMXXMZT
122105 KDRIYFYX
ARP CPC583 KBRO 2100 F370 MMTM28
KNEW RB
MMMM R
TO2103]

M1

ORIGIN:KDRIYFYX PRECEDENCE:FF TIME:
ACK:N
ADDR:CYYZCPCX MMMXXMZT
TEXT:ARP CPC583 KBRO 2100 F370 MMTM28
KNEW RB
MMMM R
TO2103

2. Section 2. When reported by the pilot:

(a) Item 6, Estimated Time of Arrival (ETA). Record ETA by the four-letter location indicator of the airport of first intended landing, or if no location indicator exists, the name of the airport followed by the estimated time of arrival at this aerodrome in hours and minutes UTC (four numerics).

(b) Item 7, Endurance. Record fuel in hours and minutes (four numerics).

3. Section 3. A full AIREP comprising a PSNRP, company information, and en route meteorological information.

(a) Item 8, Air temperature. Record PS (plus) or MS (minus), no space, followed by the temperature in degrees centigrade corrected for instrument error and airspeed, such as MS05.

(b) Item 9, Spot wind or mean wind and position. Spot wind is used whenever practical and normally refers to the position given in subpara 7-1-13b1(b) Item 2, Position. When a spot wind is given for any other location, record its position. Whenever it is not practical to record spot wind, record the mean wind between two fixes, followed by the word "mean," and the position of the midpoint between the two fixes. Record wind direction in degrees true (three numerics) and wind speed in knots (two or three numerics), separated by an oblique stroke, such as 345/55. Record the direction of variable winds of a given strength as VRB, such as VRB/10. Record light and variable winds or calm as LV. If wind position is required, record latitude and longitude to the nearest whole degree, using the data convention specified in Item 2, such as 22N180W.

EXAMPLE-
AIREP comprised of PSNRP and aircraft operator information.
AIS
FF CYYZCPCX MMMXXMZT
122105 KDRIYFYX
ARP CPC583 KBRO 2100 F370 MMTM28
MMMX 2248 FUEL 0324
KNEW RB
MMMX R
TO2103

M1

ORIGIN:KDRIYFYX PRECEDENCE:FF TIME:
ACK:N
ADDR:CYYZCPCX MMMXXMZT
TEXT:ARP CPC583 KBRO 2100 F370 MMTM28
MMMX 2248 FUEL 0324
KNEW RB
MMMX R
TO2103

(c) Item 10, Turbulence (TURB). Record severe turbulence as TURB SEV and moderate turbulence as TURB MOD. If turbulence is experienced in cloud, add INC (in cloud). If in subsonic flight, report severe turbulence as soon as possible after occurrence. This requires AIREP SPECIAL. Record and report

moderate turbulence only if encountered within last 10 minutes prior to reaching position in subpara 7-1-13b1(b) Item 2, Position. If in transonic or supersonic flight, report severe or moderate turbulence as soon as possible after occurrence. This requires AIREP SPECIAL.

(d) Item 11, Icing. Record severe icing as ICE SEV, moderate icing as ICE MOD. Report severe icing as soon as possible after occurrence. This requires AIREP SPECIAL. Record and report moderate icing only if encountered within last 10 minutes prior to reaching position in subpara 7-1-13b1(b) Item 2, Position.

(e) Item 12, Supplementary Information. Record data which in the opinion of the pilot-in-command are of aeronautical interest.

(1) Present Weather. Rain (RA), Snow (SN), Freezing rain (FZRA), Funnel cloud (FA) (waterspout or tornado), Thunderstorm (TS) on or near flight path, Front (FRONT).

(2) Clouds. If heights of cloud bases and/or tops can be accurately ascertained, amount of clouds scattered (SCT) if clear intervals predominate, broken (BKN) if cloud masses predominate, or continuous (CNS) type of clouds only if cumulonimbus (CB), and an indication of the bases (BASE) and/or the tops (TOP) together with the respective height indication F (number) or (number) or (number) M/ or (number) FT.

(3) Turbulence and Icing. Moderate turbulence (TURB MOD) if in subsonic flight, or moderate aircraft icing (ICE MOD) observed prior to the last 10 minutes.

(4) D-Value. Reading or radio altimeter minus reading of pressure altimeter set to 1013.2 mb and corrected for calibration and position error; record differences as PS (plus) or MS (minus), no space, followed by the number of meters or feet.

EXAMPLE-
Full AIREP:

AIS
FF CYYZCPCX MMMXXMZT KMIAYMYX
162215 TJSJYFYX
ARP CPC583 2709N05415W 2212 F330
23N056W 59 0035 FUEL 0324 M534 310/60
MEAN 2543N05532W TURB MOD ICE MOD SCT
CB TOP F280
TJSJ RB
TO2214

M1
ORIGIN:TJSJYFYX PRECEDENCE:FF TIME:
ACK:N
ADDR:CYYZCPCX MMMXXMZT KMIAYMYX
TEXT:ARP CPC583 2709N05415W 2212 F330
23N056W 59 0035 FUEL 0324 M534 310/60
MEAN 2543N05532W TURB MOD ICE MOD SCT
CB TOP F280
TJSJ RB
TO2214

NOTE-
Transmit to the WMO office serving the FIR where the report is made.

(5) Operationally Significant Weather Radar Echoes (echo or echo line). True bearing of center of echo or line and distance from aircraft in nautical miles; if appropriate, indicate weather intensifying or weakening and whether no gaps, some gaps, or frequent gaps are observed.

(6) Significant differences between conditions encountered and those forecast for the flight, such as forecast thunderstorms not observed or freezing rain not forecast.

(7) If the position of the phenomenon reported is not the same as the position given under subpara 7-1-13b1(b) Item 2, Position, report it after the phenomenon.

7-1-14. AIREP SPECIALS (ARS)

a. Turbulence. TURB SEV encountered while in subsonic flight is reported as soon as possible after occurrence and requires AIREP SPECIAL. TURB MOD is reported only if encountered within 10 minutes prior to reaching reporting position. If in transonic or supersonic flight, TURB MOD and SEV is reported as soon as possible and requires AIREP SPECIAL.

b. Icing. ICE SEV is reported as soon as possible after occurrence and requires AIREP SPECIAL. ICE MOD is reported only if encountered within last 10 minutes prior to reaching reporting position.

EXAMPLE-
AIS
FF KMIAYMYX
211538 TJSJYFYX
ARS PAA101 5045N02015W 1536 F310 ASC F350 51N030W 21 FUEL 0900 ICE SEV

M1
ORIGIN:TJSJYFYX PRECEDENCE:FF TIME:
ACK:N
ADDR:KMIAYMYX
TEXT: ARS PAA101 5045N02015W 1536 F310 ASC F350 51N030W 21 FUEL 0900 ICE SEV

7-1-15. ARTCC RELAY OF VFR MESSAGES

ARTCC AIS operators shall relay all international VFR flight movement messages to the adjacent AIFSS/AFSS/FSS unless that facility is also an addressee.

NOTE-
If an overseas unit erroneously routes a VFR movement message to an ARTCC, the automatic NADIN switch will not divert it to an AIFSS, AFSS or FSS.